



Economic Impact Analysis Virginia Department of Planning and Budget

9 VAC 20-85 – Regulation Governing Management of Coal Combustion By-Products Department of Environmental Quality August 10, 2005

The Department of Planning and Budget (DPB) has analyzed the economic impact of this proposed regulation in accordance with Section 2.2-4007.H of the Administrative Process Act and Executive Order Number 21 (02). Section 2.2-4007.H requires that such economic impact analyses include, but need not be limited to, the projected number of businesses or other entities to whom the regulation would apply, the identity of any localities and types of businesses or other entities particularly affected, the projected number of persons and employment positions to be affected, the projected costs to affected businesses or entities to implement or comply with the regulation, and the impact on the use and value of private property. The analysis presented below represents DPB's best estimate of these economic impacts.

Summary of the Proposed Regulation

The Waste Management Board (the board) proposes to amend the regulation governing the management of coal combustion by-products (CCB). Specifically, provisions of the current regulation that enumerate generic compaction requirements for CCB have been removed and a provision directing that an engineer submit project compaction specifications based on intended use of the building site have been proposed. Project engineers will also be required to submit certification that projects have been completed according to these specifications. The proposed regulation requires that the Department of Environmental Quality (DEQ) evaluate all project documentation within 30 days of submission and allows placement of fossil fuel combustion products to begin after that evaluation is complete. In addition, the proposed regulation will allow fuel combustion products to be used under the same conditions and in the same manner as CCB.

The board is also considering proposals to either remove provisions in the Virginia Solid Waste Management Regulation (VSWMR) that govern coal ash and consolidate these provisions into the regulation governing management coal combustion by-products or to eliminate the CCB regulation entirely and consolidate all provisions therein with the VSWMR.

Estimated Economic Impact

Fossil fuel combustion products are the residuals left after coal, oil, natural gas, petroleum coke or a mixture of coal and other fuels¹ is burned to produce electricity or steam. Fly ash, bottom ash, boiler slag, and flue gas control waste are the residuals from this generation process. These residuals can be used as a drainage medium and stabilized road base/sub-base for road construction and provide a stable base for building when used at construction sites. They have also been used in Virginia as a structural fill and contouring medium for a golf course in the Tidewater area. There are numerous additional uses for CCB and fuel combustion products that are governed by provisions of the VSWMR and, as such, will not be affected by this proposed regulatory change. All of these uses, both those regulated under VSWMR and under the regulation governing management of CCB, divert for good purpose materials that would otherwise end up in landfills. Given that over 90 million tons of fossil fuel combustion by-products are produced in the US each year, and well over 2 million tons are produced in Virginia, any cost effective steps that the Commonwealth can take to facilitate that diversion will benefit the public at large as well as the buyers and sellers of these products.

Current regulation lists compaction specifications to which all CCB and fuel combustion projects must adhere. These specifications include a specific maximum depth in which layers of CCB may be laid as well as a minimum density to which these layers must be compacted. The proposed regulation removes the codified compaction specifications and adds language requiring project engineers to submit project distinct compaction specifications to DEQ during the application process. This will allow businesses to develop CCB and fuel combustion product sites using the specifications that they find are most appropriate for the site and the project's intended use. This change will add some cost to the application process since unique project specifications will take extra time to develop and submit. DEQ estimates that the cost of adding

¹ Waste derived fuel product, auto shredder fluff, wood waste, coal mill rejects, peat, tall oil, tire derived fuel, deionizer resins and used oil are considered to be other fuels and may be co-burned with coal as long as coal comprises at least 50% of the fuel volume.

the generation of site specifications to the work a site engineer already does will add \$1,000 to \$2,500 to the cost of a CCB project. This cost will be offset by the greater flexibility businesses will have to undertake projects using CCB or fuel combustion products for which the generic specifications would have been inadequate. The regulatory change will likely increase demand for CCB and other fuel combustion products as more varied uses for these products will now be allowed. It will also limit the legal exposure that the regulatory agency would be subject to should a project built using specifications mandated in regulation fail.

The board proposes that site engineers also be required to affirm that their project was finished using the compaction specifications submitted during the application process. Regulatory provisions that currently govern closure criteria for CCB project sites require project engineers to submit a signed statement that affirms that the project has been completed in accordance with design plans. The proposed regulatory change will not impose a substantive burden because engineers will just be adding language to an already required statement.

The proposed regulation mandates that DEQ evaluate applications submitted to the agency within 30 days. Although DEQ already responds very quickly to these types of applications, this requirement will provide protection against lengthy and costly delays in the application approval process if there is a problem with response time in the future.

In addition, the board proposes to change regulatory language so that businesses need not obtain a variance in order to use fuel combustion products. Under the proposed regulation, CCB and fuel combustion products are both defined as fossil fuel combustion products and are subject to the same rules of use and permit application process. This proposed change will have no effect on the environmental safeguards that users of either CCB or fuel combustion products must ensure; it will eliminate a layer of administrative requirements that currently constrains the use of, and would tend to suppress the demand for, fuel combustion products.

This change will reduce permit application costs for businesses who wish to use fuel combustion products by the amount of the filing fees which run between \$1000 and \$2000. Businesses will also save the value of time that would have been spent filling out and filing the separate application for variance. DEQ estimates that the variance filing process takes approximately half a day of clerical work to finish. The proposed regulatory change will tend to

lower the cost of using fuel combustion products which will tend to increase demand for these products.

If this proposed regulatory change leads to increased demand for fuel combustion products, producers of those products will benefit in several ways. Immediately, increased sales of fuel combustion products will increase revenue. Additionally, increased sales will mean less unsold fuel combustion products that would then take up landfill space. This will lower disposal costs for producers and also slow the rate at which current landfills reach capacity and decrease the rate at which new landfills will need to be developed. Both increased revenue and decreased costs will raise profits for producers of fuel combustion products. Additionally, the public at large is better off when these products are used in ecologically safe projects rather than becoming part of the Commonwealth's solid waste stream.

In short, the proposed regulation will tend to encourage the use of fossil fuel combustion products which will have positive economic implications for all affected parties.

Toward the same end of encouraging use of CCB by simplifying regulation, it makes sense to consolidate all regulations that address the use of fossil fuel combustion products to make them easier to find. This can be better accomplished by pulling the provisions for coal ash out of the VSWMR and placing them in the separate regulation governing management of fossil fuel combustion by-products than it would be by forcing interested parties to search through the entire VSWMR to find the relevant provisions. It is worth noting also that this approach would tend to produce more benefits than would incorporating all regulation into the VSWMR as that incorporation would have the effect of labeling by-products as waste which could stigmatize and suppress their socially and economically beneficial use.

Businesses and Entities Affected

Both producers of CCB and fuel combustion products and entities who wish to purchase and use those products will benefit from the decreased regulatory burden outlined in the proposed regulation. DEQ has evaluated, on average, 1 application for CCB projects per year since current regulation was introduced in 1995. During that time period, 6 projects have been approved. A variance to use fuel combustion products was needed in 1 of those 6 projects.

Localities Particularly Affected

All localities in Virginia will be affected by the proposed regulation.

Projected Impact on Employment

To the extent that a more streamlined regulatory scheme and application process encourages more projects using CCB and fuel combustion products, the proposed regulation will tend to increase employment in the construction sector. To the extent that CCB and fuel combustion products are used rather than landfilled, employment in the landfill industry will be slightly suppressed. The proposed regulation is likely to have a positive net effect on employment in the Commonwealth.

Effects on the Use and Value of Private Property

The proposed regulation will increase the value of property in the Commonwealth in several ways. Most immediately, the proposed regulation will save businesses that want to use fuel combustion products the fees (\$1000 to \$2000) associated with, as well as the time spent, filing an application for variance. DEQ estimates that the paperwork associated with filing a variance takes approximately 3 to 4 hours to fill out and file.

Additionally, sold CCB and fuel combustion products are not being added to the solid waste stream of the companies, such as Dominion Power, that produce them. This will tend to slow the rate at which these companies' landfills reach capacity and will also reduce the need for new landfills. So, in addition to the revenue raised by selling CCB and fuel combustion products, these companies can reduce their operating costs, and boost their profits. To the extent that the proposed regulation will reduce the need for new landfill space, the value of land adjacent to possible landfill sites will not be degraded.

Small Businesses: Reporting, Recordkeeping, & Administrative Costs

Small businesses that want to use fuel combustion products will save \$1000 to \$2000 in fees associated with variance application and will also save the half day of staff time needed to fill out and file variance paperwork.

Small Businesses: Alternative Method that Minimizes Adverse Impact

The proposed regulation will decrease the compliance burden on the regulated community.

